

09/853,854

=> d his

(FILE 'HOME' ENTERED AT 17:50:59 ON 20 OCT 2001)

FILE 'REGISTRY' ENTERED AT 17:51:06 ON 20 OCT 2001

E GEMIFLOXACIN/CN

L1 2 S E3-E4

FILE 'CAPLUS, USPATFULL' ENTERED AT 17:51:36 ON 20 OCT 2001

L2 126 S L1

L3 2 S L2 AND MYCOPLASM? AND BACTERIA? AND UREAPLASMA?

L4 2 DUP REM L3 (0 DUPLICATES REMOVED)

09/853,854

=> e gemifloxacin/cn

E1 1 GEMICHALCONE C/CN
E2 1 GEMIDE/CN
E3 1 --> GEMIFLOXACIN/CN
E4 1 GEMIFLOXACIN MESYLATE/CN
E5 1 GEMIN A/CN
E6 1 GEMIN B/CN
E7 1 GEMIN C/CN
E8 1 GEMIN D/CN
E9 2 GEMIN E/CN
E10 1 GEMIN E (A FORM)/CN
E11 1 GEMIN E (B FORM)/CN
E12 1 GEMIN F/CN

=> s e3-e4

1 GEMIFLOXACIN/CN
1 "GEMIFLOXACIN MESYLATE"/CN
L1 2 (GEMIFLOXACIN/CN OR "GEMIFLOXACIN MESYLATE"/CN)

=> d 11 1 2

L1 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2001 ACS
RN 210353-53-0 REGISTRY
CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-, monomethanesulfonate (9CI) (CA INDEX NAME)

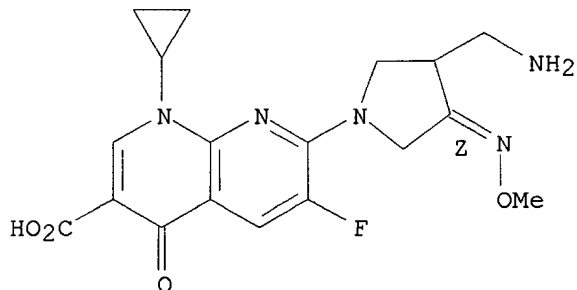
OTHER NAMES:

CN **Gemifloxacin mesylate**
CN LB 20304a
CN SB 265805S
FS STEREOSEARCH
DR 204519-65-3, 214346-13-1
MF C18 H20 F N5 O4 . C H4 O3 S
SR CA
LC STN Files: BIOSIS, BIOTECHNO, CA, CAPLUS, DDFU, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, SYNTHLINE, TOXLIT, USPATFULL

CM 1

CRN 175463-14-6
CMF C18 H20 F N5 O4

Double bond geometry as shown.



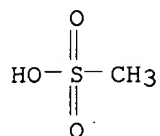
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CM 2

CRN 75-75-2

CMF C H4 O3 S



49 REFERENCES IN FILE CA (1967 TO DATE)

49 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2001 ACS

RN 175463-14-6 REGISTRY

CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-(9CI) (CA INDEX NAME)

OTHER NAMES:

CN **Gemifloxacin**

CN LB 20304

CN SB 265805

FS STEREOSEARCH

DR 204519-64-2, 210353-52-9, 214346-11-9

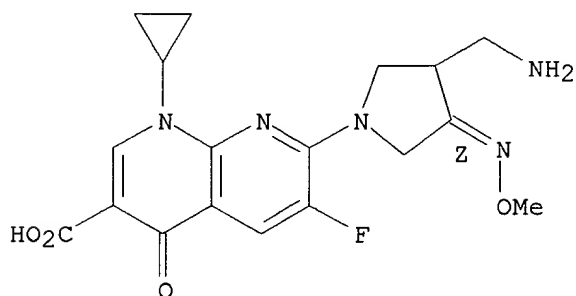
MF C18 H20 F N5 O4

CI COM

SR CA

LC STN Files: ADISINSIGHT, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CBNB, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, PHAR, SYNTHLINE, TOXLIT, USPATFULL

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

75 REFERENCES IN FILE CA (1967 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

76 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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=> file caplus, uspatfull

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=> d his

(FILE 'HOME' ENTERED AT 17:50:59 ON 20 OCT 2001)

FILE 'REGISTRY' ENTERED AT 17:51:06 ON 20 OCT 2001
E GEMIFLOXACIN/CN

L1 2 S E3-E4

FILE 'CAPLUS, USPATFULL' ENTERED AT 17:51:36 ON 20 OCT 2001

=> s l1

L2 126 L1

=> s l2 and mycoplasm? and bacteria? and ureaplasma?

L3 2 L2 AND MYCOPLASM? AND BACTERIA? AND UREAPLASMA?

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 2 DUP REM L3 (0 DUPLICATES REMOVED)

=> d l4 abs ibib kwic hitstr 1 2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS

AB This invention relates, in part, to newly identified methods of using
quinolone antibiotics, particularly a gemifloxacin compd. against certain
bacteria, esp. pathogenic **bacteria**.

ACCESSION NUMBER: 2001:167806 CAPLUS

DOCUMENT NUMBER: 134:188189

TITLE: Methods of use of fluoroquinolone compounds against
bacteria

INVENTOR(S): Ambler, Jane E.; Amyes, Sebastian G.; Andrews,
Jennifer Mary; Appelbaum, Peter C.; Barker, Phillipa
J.; Beach, Mondel L.; Berry, Valerie Joan; Briand,
Jacques; Broskey, John P.; et al.

PATENT ASSIGNEE(S): Smithkline Beechman Corporation, USA; Smithkline
Beecham P.L.C.

SOURCE: PCT Int. Appl., 303 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001015695	A1	20010308	WO 2000-US23883	20000831
W:	AE, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CZ, DZ, EE, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			US 1999-151834	P 19990901
			US 1999-151835	P 19990901
			US 1999-151836	P 19990901

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US 1999-151837 P 19990901
 US 1999-151917 P 19990901
 US 1999-151960 P 19990901
 US 1999-153884 P 19990914
 US 1999-154115 P 19990914
 US 1999-155148 P 19990922
 US 1999-155149 P 19990922
 US 1999-155150 P 19990922
 US 1999-155338 P 19990922
 US 1999-155340 P 19990922
 US 1999-155344 P 19990922
 US 1999-155346 P 19990922
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 US 1999-155348 P 19990922
 US 1999-155349 P 19990922
 US 1999-155358 P 19990922
 US 1999-155359 P 19990922
 US 1999-155360 P 19990922
 US 1999-155379 P 19990922
 US 1999-155380 P 19990922
 US 1999-155381 P 19990922
 US 1999-155382 P 19990922
 US 1999-155383 P 19990922
 US 1999-155384 P 19990922
 US 1999-155391 P 19990922
 US 1999-155392 P 19990922
 US 1999-155393 P 19990922
 US 1999-155394 P 19990922
 US 1999-155395 P 19990922
 US 1999-155868 P 19990924
 US 1999-155869 P 19990924
 US 1999-155957 P 19990924

- TI Methods of use of fluoroquinolone compounds against **bacteria**
 AB This invention relates, in part, to newly identified methods of using
 quinolone antibiotics, particularly a gemifloxacin compd. against certain
bacteria, esp. pathogenic **bacteria**.
 IT Enzymes, biological studies
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (DNA gyrases; quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)
 IT Biological transport
 (drug, efflux; quinolone antibiotics, esp. gemifloxacin compds.,
 against **bacteria**)
 IT Gene, microbial
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gyrA; quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)
 IT Gene, microbial
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gyrB; quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)
 IT Metabolism
 (of pneumococcal pathogenic **bacteria**; quinolone antibiotics,
 esp. gemifloxacin compds., against **bacteria**)
 IT Gene, microbial
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (parC; quinolone antibiotics, esp. gemifloxacin compds., against

bacteria)

IT Gene, microbial
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (parE; quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT Acinetobacter
 Acinetobacter anitratum
 Acinetobacter baumannii
 Acinetobacter calcoaceticus
 Acinetobacter lwoffii
 Actinomyces israelii
 Actinomyces odontolyticus
 Anaerobiospirillum succiniciproducens
 Anaerobiospirillum thomasi
 Antibacterial agents
 Bacillus (bacterium genus)
 Bacteroides
 Bacteroides fragilis
 Bacteroides tectum
 Bacteroides ureolyticus
 Bilophila wadsworthia
 Bordetella bronchiseptica
 Bordetella parapertussis
 Bordetella pertussis
 Burkholderia cepacia
 Campylobacter gracilis
 Chlamydia pneumoniae
 Citrobacter freundii
 Clostridium clostridioforme
 Clostridium difficile
 Clostridium innocuum
 Clostridium perfringens
 Clostridium ramosum
 Corynebacterium
 Drug resistance
 Enterobacter
 Enterobacter aerogenes
 Enterobacter cloacae
 Enterobacteriaceae
 Enterococcus
 Enterococcus faecalis
 Enterococcus faecium
 Escherichia coli
 Finegoldia magna
 Fluoribacter bozemanae
 Fluoribacter dumoffii
 Fluoribacter gormanii
 Fusobacterium gonidiaformans
 Fusobacterium mortiferum
 Fusobacterium naviforme
 Fusobacterium necrogenes
 Fusobacterium necrophorum
 Fusobacterium nucleatum
 Fusobacterium nucleatum animalis
 Fusobacterium russii
 Fusobacterium ulcerans
 Fusobacterium varium

Gram-negative **bacteria**
 Granulicatella adiacens
 Haemophilus
 Haemophilus influenzae
 Haemophilus parainfluenzae
 Klebsiella
 Klebsiella oxytoca
 Klebsiella pneumoniae
 Legionella feeleeii
 Legionella jordanis
 Legionella longbeachae
 Legionella oakridgensis
 Legionella pneumophila
 Legionella sainthelensi
 Legionella wadsworthii
 Moraxella catarrhalis
 Morganella morganii
 Mycoplasma fermentans
 Mycoplasma genitalium
 Mycoplasma hominis
 Mycoplasma penetrans
 Mycoplasma pneumoniae
 Neisseria gonorrhoeae
 Neisseria meningitidis
 Pathogenic **bacteria**
 Peptostreptococcus
 Peptostreptococcus anaerobius
 Peptostreptococcus asaccharolyticus
 Peptostreptococcus micros
 Peptostreptococcus prevotii
 Porphyromonas asaccharolytica
 Porphyromonas cangingivalis
 Porphyromonas canoris
 Porphyromonas cansulci
 Porphyromonas circumdentaria
 Porphyromonas gingivalis
 Porphyromonas levii
 Porphyromonas macacae
 Prevotella bivia
 Prevotella buccae
 Prevotella heparinolytica
 Prevotella intermedia
 Prevotella loescheii
 Prevotella melaninogenica
 Prevotella oris
 Proteus (bacterium)
 Proteus mirabilis
 Proteus vulgaris
 Providencia
 Providencia stuartii
 Pseudomonadaceae
 Pseudomonas aeruginosa
 Ralstonia pickettii
 Salmonella
 Serratia
 Staphylococcus
 Staphylococcus aureus

Staphylococcus epidermidis
 Staphylococcus saprophyticus
 Stenotrophomonas maltophilia
 Streptococcus
 Streptococcus agalactiae
 Streptococcus anginosus
 Streptococcus bovis
 Streptococcus milleri
 Streptococcus mutans
 Streptococcus pneumoniae
 Streptococcus pyogenes
 Tatlockia micdadei

Ureaplasma urealyticum

Veillonella

(quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT Antibiotics

(quinolone; quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT Streptococcus

(.beta.-hemolytic; quinolone antibiotics, esp. gemifloxacin compds.,
 against **bacteria**)

IT 85721-33-1, Ciprofloxacin

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
 process); BSU (Biological study, unclassified); THU (Therapeutic use);
 BIOL (Biological study); PROC (Process); USES (Uses)
 (and resistance; quinolone antibiotics, esp. gemifloxacin compds.,
 against **bacteria**)

IT 1404-90-6, Vancomycin 55268-75-2, Cefuroxime 63527-52-6, Cefotaxime
 83905-01-5, Azithromycin 100490-36-6, Tosufloxacin 100986-85-4,
 Levofloxacin 119914-60-2, Grepafloxacin 147059-72-1, Trovafloxacin
175463-14-6, Gemifloxacin **210353-53-0**, Gemifloxacin
 mesylate

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)

(quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT 60-54-8, Tetracycline 61-33-6, Penicillin G, biological studies
 69-53-4, Ampicillin 114-07-8, Erythromycin 389-08-2, Nalidixic acid
 443-48-1, Metronidazole 564-25-0, Doxycycline 723-46-6,
 Sulfamethoxazole 1403-66-3, Gentamicin 8064-90-2, Co-trimoxazole
 13292-46-1, Rifampicin 18323-44-9, Clindamycin 26787-78-0, Amoxicillin
 64221-86-9, Imipenem 79198-29-1 79350-37-1, Cefixime 81103-11-9,
 Clarithromycin 82419-36-1, Ofloxacin 105956-97-6, Clinafloxacin
 110871-86-8, Sparfloxacin 112811-59-3, Gatifloxacin 127254-12-0,
 Sitafloxacin 151096-09-2, Moxifloxacin **175463-14-6D**,
 Gemifloxacin, derivs.

RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)

(quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT 144941-31-1, Topoisomerase IV

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

IT 1406-05-9, Penicillin

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RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resistance to; quinolone antibiotics, esp. gemifloxacin compds.,
against **bacteria**)

IT **175463-14-6**, Gemifloxacin **210353-53-0**, Gemifloxacin
mesylate

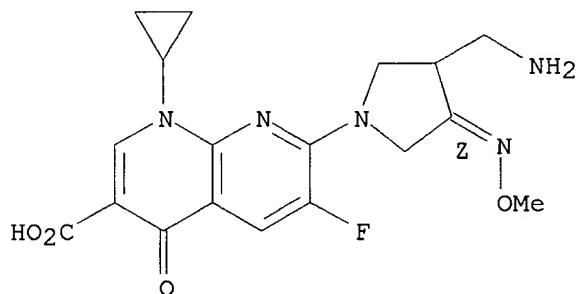
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
USES (Uses)

(quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

RN 175463-14-6 CAPLUS

CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-
(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-
(9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 210353-53-0 CAPLUS

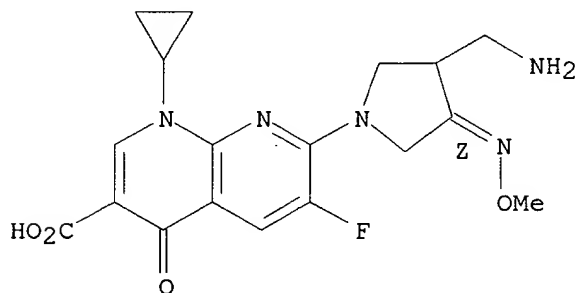
CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-
(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-,
monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 175463-14-6

CMF C18 H20 F N5 O4

Double bond geometry as shown.



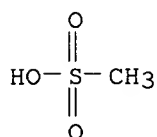
CM 2

CRN 75-75-2

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CMF C H4 O3 S



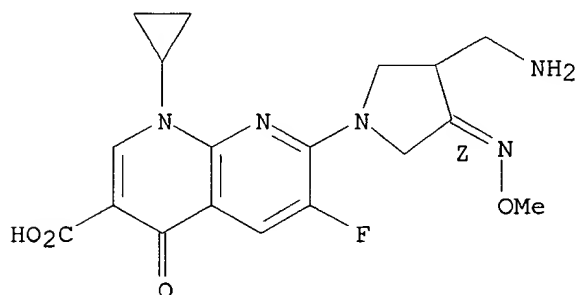
IT 175463-14-6D, Gemifloxacin, derivs.

RL: BAC (Biological activity or effector, except adverse); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(quinolone antibiotics, esp. gemifloxacin compds., against
bacteria)

RN 175463-14-6 CAPLUS

CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-
(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-
(9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT:

3

REFERENCE(S):

- (1) Hardy, D; J Antimicrob Chemother 1999, V44(Suppl A), P146
- (2) Heaton, V; J Antimicrob Chemother 1999, V44(Suppl A), P140
- (3) King, A; J Antimicrob Chemother 1999, V44(Suppl A), P147

L4 ANSWER 2 OF 2 USPATFULL

AB This invention relates, in part, to newly identified methods of using
quinolone antibiotics, particularly a gemifloxacin compound against
certain pathogenic **bacteria**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:112336 USPATFULL

TITLE: Methods of use of antimicrobial compounds against
pathogenic mycoplasma **bacteria**

INVENTOR(S): Crabb, Donna M., Birmingham, AL, United States
Duffy, Lynn B., Birmingham, AL, United States
Searcy, Karen B., Birmingham, AL, United States

PATENT ASSIGNEE(S): SmithKline Beecham Corporation, Philadelphia, PA,
United States (U.S. corporation)

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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6262071	B1	20010717
APPLICATION INFO.:	US 1999-399855		19990921 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-141455	19990629 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Weddington, Kevin E.	
LEGAL REPRESENTATIVE:	Gimmi, Edward R., Henderson, Loretta J., Kinzig, Charles M.	
NUMBER OF CLAIMS:	13	
EXEMPLARY CLAIM:	1	
LINE COUNT:	254	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Methods of use of antimicrobial compounds against pathogenic *mycoplasma* **bacteria**

AB This invention relates, in part, to newly identified methods of using quinolone antibiotics, particularly a gemifloxacin compound against certain pathogenic **bacteria**.

SUMM This invention relates, in part, to newly identified methods of using quinolone antibiotics, particularly a gemifloxacin compound against **Mycoplasma bacteria**, such as *Mycoplasma pneumoniae*.

SUMM Quinolones have been shown to be effective to varying degrees against a range of **bacterial** pathogens. However, as diseases caused by these pathogens are on the rise, there exists a need for antimicrobial compounds that. . .

SUMM Provided herein is a significant discovery made using a gemifloxacin compound against **Mycoplasma**, demonstrating the activity of the gemifloxacin compound used was superior to a number of quinolones as described in more detail herein. Gemifloxacin compounds are valuable compounds for the treatment of **bacterial** infection caused by a range of **Mycoplasma** pathogens, including those resistant to usual oral therapy, thereby filling an unmet medical need.

SUMM An object of the invention is a method for modulating metabolism of pathogenic **Mycoplasma bacteria** comprising the step of contacting pathogenic **Mycoplasma bacteria** with an antibacterially effective amount of a composition comprising a quinolone, particularly a gemifloxacin compound, or an antibacterially effective derivative. . .

SUMM A further object of the invention is a method wherein said pathogenic **Mycoplasma bacteria** is selected from the group consisting of: **Mycoplasma pneumoniae**, *M. hominis*, *M. fermentans*, *M. genitalium*, *M. penetrans* and **Ureaplasma urealyticum**.

SUMM Also provided by the invention is a method of treating or preventing a **bacterial** infection by pathogenic **Mycoplasma bacteria** comprising the step of administering an antibacterially effective amount of a composition comprising a quinolone, particularly a gemifloxacin compound to a mammal suspected of having or being at risk of having an infection with pathogenic **Mycoplasma bacteria**.

SUMM A preferred method is provided wherein said modulating metabolism is inhibiting growth of said **bacteria** or killing said **bacteria**.

- SUMM A further preferred method is provided wherein said contacting said **bacteria** comprises the further step of introducing said composition into a mammal, particularly a human.
- SUMM Further preferred methods are provided by the invention wherein said **bacteria** is selected from the group consisting of: **Mycoplasma pneumoniae**, *M. hominis*, *M. fermentans*, *M. genitalium*, *M. penetrans* and **Ureaplasma urealyticum**.
- DETD . . . among other things, methods for using a composition comprising a quinolone, particularly a gemifloxacin compound against a range of pathogenic **bacteria**.
- DETD . . . of a gemifloxacin compound, as well as other new quinolones and macrolides using low-passaged clinical isolates and type strains of **Mycoplasma** species commonly found in the respiratory and urogenital tract of humans. Organisms used in the analyses included **Mycoplasma pneumoniae** (MPN), *M. hominis* (Mh), *M. fermentans* (Mf), *M. genitalium* (Mg), *M. penetrans* (Mp) and **Ureaplasma urealyticum** (Uu). Minimum Inhibitory Concentrations (MICs) were determined using a micro-broth dilution method. Assays for **Ureaplasma urealyticum** were performed in 10B media and all other **mycoplasma** assays were carried out in SP4 medium. Comparator drugs, to which gemifloxacin was compared, as well as also being useful.
- DETD The invention provides a method for modulating metabolism of pathogenic **Mycoplasma bacteria**. Skilled artisans can readily choose pathogenic **Mycoplasma bacteria** or patients infected with or suspected to be infected with these organisms to practice the methods of the invention. Alternatively, the **bacteria** useful in the methods of the invention may be those described herein.
- DETD . . . provision of a composition comprising a gemifloxacin compound to a human patient in need of such composition or directly to **bacteria** in culture medium or buffer.
- DETD For example, when contacting a human patient or contacting said **bacteria** in a human patient or in vitro, the compositions comprising a quinolone, particularly a gemifloxacin compound, preferably pharmaceutical compositions may. . .
- DETD . . . and compositions of the methods of the invention may be employed alone or in conjunction with other compounds, such as **bacterial** efflux pump inhibitor compounds or antibiotic compounds, particularly non-quinolone compounds, e.g., beta-lactam antibiotic compounds.
- DETD . . . are within the scope of this invention. It is preferred that the dosage is selected to modulate metabolism of the **bacteria** in such a way as to inhibit or stop growth of said **bacteria** or by killing said **bacteria**. The skilled artisan may identify this amount as provided herein as well as using other methods known in the art, . . .
- DETD . . . a gemifloxacin compound or composition of the invention may be administered by injection to achieve a systemic effect against relevant **bacteria**, preferably a pathogenic **Mycoplasma bacteria**, shortly before insertion of an in-dwelling device. Treatment may be continued after surgery during the in-body time of the device. In addition, the composition could also be used to broaden perioperative cover for any surgical technique to prevent **bacterial** wound infections caused by or related to pathogenic **Mycoplasma bacteria**.
- DETD . . . used in the methods of this invention may be used generally as a wound treatment agent to prevent adhesion of **bacteria** to

matrix proteins, particularly pathogenic **Mycoplasma bacteria**, exposed in wound tissue and for prophylactic use in dental treatment as an alternative to, or in conjunction with, antibiotic. . . .

DETD Also provided by the invention is a method of treating or preventing a **bacterial** infection by pathogenic **Mycoplasma bacteria** comprising the step of administering an antibacterially effective amount of a composition comprising a quinolone, particularly a gemifloxacin compound to a mammal, preferably a human, suspected of having or being at risk of having an infection with pathogenic **Mycoplasma bacteria**.

DETD While a preferred object of the invention provides a method wherein said pathogenic **Mycoplasma bacteria** is selected from the group consisting of: **Mycoplasma pneumoniae**, **M. hominis**, **M. fermentans**, **M. genitalium**, **M. penetrans** and **Ureaplasma urealyticum**. Other pathogenic **Mycoplasma bacteria** may also be included in the methods. The skilled artisan may identify these organisms as provided herein as well as. . . .

CLM What is claimed is:

1. A method for modulating metabolism of pathogenic **Mycoplasma bacteria** comprising the step of contacting pathogenic **Mycoplasma bacteria** with an antibacterially effective amount of a composition comprising a gemifloxacin compound, or antibacterially effective derivatives thereof.

2. The method of claim 1 wherein said pathogenic **Mycoplasma bacteria** is a member of the genus **Mycoplasma**.

3. The method of claim 1 wherein said modulating metabolism is inhibiting growth of said **bacteria**.

4. The method of claim 1 wherein said modulating metabolism is killing said **bacteria**.

5. The method of claim 1 wherein said contacting said **bacteria** comprises the further step of introducing said composition into a mammal.

7. The method of claim 2 wherein said **bacteria** is selected from the group consisting of: **Mycoplasma hominis** and **Mycoplasma fermentans**.

8. The method of claim 1 wherein said **bacteria** is a member of the genus **Ureaplasma**.

9. The method of claim 8 wherein said **bacteria** is **Ureaplasma urealyticum**.

10. The method of claim 2 wherein said **bacteria** is selected from the group consisting of: **Mycoplasma pneumoniae**, **Mycoplasma genitalium**, and **Mycoplasma penetrans**.

IT 175463-14-6D, Gemifloxacin, derivs.

(methods of use of gemifloxacin and other fluoroquinolones against bacteria)

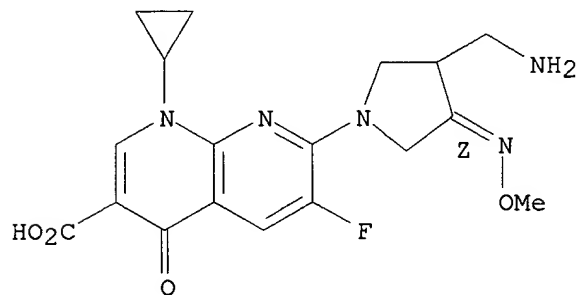
IT 175463-14-6D, Gemifloxacin, derivs.

(methods of use of gemifloxacin and other fluoroquinolones against

09/853,854

bacteria)
RN 175463-14-6 USPATFULL
CN 1,8-Naphthyridine-3-carboxylic acid, 7-[(4Z)-3-(aminomethyl)-4-(methoxyimino)-1-pyrrolidinyl]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



=> d his

(FILE 'HOME' ENTERED AT 17:50:59 ON 20 OCT 2001)

FILE 'REGISTRY' ENTERED AT 17:51:06 ON 20 OCT 2001
E GEMIFLOXACIN/CN

L1 2 S E3-E4

FILE 'CAPLUS, USPATFULL' ENTERED AT 17:51:36 ON 20 OCT 2001

L2 126 S L1

L3 2 S L2 AND MYCOPLASM? AND BACTERIA? AND UREAPLASMA?

L4 2 DUP REM L3 (0 DUPLICATES REMOVED)

=> file stnguide

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Err ors
1	IS&R	L1	1	("6262071").PN.	USPAT	2001/10/20 17:48			0
2	BRS	L2	1	gemifloxacin\$	USPAT	2001/10/20 17:49			0